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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,342	02/12/2004	Frederic Neftel	B0884.70074US01	4933

7590 08/09/2007  
Lawrence Green  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, MA 02210

EXAMINER
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GRAY, PHILLIP A

ART UNIT	PAPER NUMBER
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3767

MAIL DATE	DELIVERY MODE
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08/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/777,342	Applicant(s) NEFTEL, FREDERIC	
	Examiner Phillip Gray	Art Unit 3767	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 May 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-4, 6, 10-13 and 25-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4, 6, 10-13 and 25-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

This office action is in response to applicant's communication of 5/16/2007. Currently amended and newly added claims 2-4, 6, 10-13, 25-34 are pending and stand rejected below.

### ***Claim Objections***

Claim 26 is objected to because of the following informalities: It is indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim limitation "the maximum pressure that can be **set up** in the downstream segment in the absence of injection..." is unclear and not descript. Examiner is unable to ascertain what is meant by "set up". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Uber III (U.S. Patent Number 5,843,037, hereafter "Uber"). Uber discloses a multipatient fluid dispensing system and method of injecting liquid under pressure to a patient (see Uber

column 1 generally). Uber discloses a method for injecting that comprises the steps of 1.) **providing liquid under pressure to a patent**, via a set of tubing with an occlusion system and an upstream regulation system, and 2.) **when the injection is to be stopped closing the regulation system** and 3.) **closing the first occlusion system**, and a pressurizing system (such as pump 12). Uber discloses these steps of providing liquid (described in column 2), and closing the regulation system and later the occlusion system disclosed in column 3). It is evident that Uber would disclose providing the liquid and then stopping the liquid by closing the regulation system and the occlusion system. For instance (in figure 1) after supplying the fluid, the valve/pump regulation system elements (12, 20, 21 for one example) would be shut off by electrical control system, and then the occlusion system would be shut off (such as rotary valve 27), as described in paragraphs at column 3. The claim limitations of the intermediate segment (Uber element 26 for example) having an intermediate pressure greater than the downstream segment (36 for example) would be evident in operation of the system. Pressurizing system/Pump 12 would provide a pressure for the system that would be greatest at the upstream end (near 10) and would decrease as the liquid flowed through the system and would least at the end (near patent end 36). This pressure difference would be evident do to the fact that the liquid flows to the patient and not upstream into the reservoir, besides the overall nature of fluid dynamics.

Further the intermediate segment would have a contained intermediate pressure (in supply conduit 26 since oneway valve 25 and rotary valve 27 would seal this segment and maintain a specific intermediate pressure) that would be greater than the

downstream end (36) and hence fluid would to the end of lower pressure (ie the downstream end). The Uber systems pressure difference between the intermediate pressure and the downstream pressure would prevent the upstream flow of liquid even after the injection has stopped (either by stopping the regulation system, occlusion system or both sequentially or simultaneously). It is examiners position that Uber discloses all the steps of the method (1. providing liquid, 2. closing the regulation system, 3. closing the occlusion system) and these steps are carried out on a structural apparatus similar to the claimed structural apparatus (tubes with regulation system and occlusion system) and that the intermediate/downstream pressure differential would exist and be present in the system as carried out by the Uber method disclosed.

It is examiner's position that the prior art of record does satisfy and anticipate the claims as amended. The claims as written do not preclude the mechanical regulation of the system as taught in the prior art of record, from anticipating them, and capable of their claimed operation. In operation of the prior art methods and systems, the positive pressure upstream would cause the flow of liquid out to the downstream end of lowest pressure after passing through an intermediate section of intermediate pressure. Closing of regulation systems and occlusion systems would not instantly cause these intermediate pressures to not exist.

The prior art of record anticipates the pending claims as written because all claim limitations are met and the interpretation of the prior art satisfies all functional, structural, operational and spatial, claim limitations.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-4, 6, 10-13, and 27-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uber in view of Lichtenstein (U.S. Patent Number 4,464,172)

Lichtenstein discloses a computer controlled medical care system for use in the treatment and diagnosis of patients, which provides for either automatic or manual control of a wide variety of medical procedures. Lichtenstein discloses a system of tubing and valves for infusion to a patient, which contains a wide variety of sensors. The system may include one or more sensors for determining pressure and rate of fluid flow within ducts and chambers in the module. Also included may be sensors for invasive or noninvasive determination of intravascular pressures within a patient connected with a

module and arrangements for gravity flow or pumped flow of fluid between a module and a patient or within the module. The Lichtenstein includes an intermediate segment of tubing with one way valves and various pumps that are monitored and controlled to regulate the pressure and fluid flow to a patient and alarming in response to various outputs. (see paragraphs beginning at column 7 line 53, to column 12 line 54).

Uber discloses the claimed invention except for the leakage monitoring and alarming and one-way valve. Lichenstein teaches that it is known to use leakage monitoring and alarming with a one-way valves as set forth in paragraphs at column 7 line 53, to column 12 line 54 to provide a controlled and efficient means for fluid transfer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Uber with the leakage monitoring and alarming with one-way valve as taught by Lichenstein, since such a modification would provide the method with leakage monitoring and alarming with a one-way valve for providing a controlled and efficient means for fluid transfer.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Teirstein (U.S. Patent Number 5,533,978)

Hellman et al. (U.S. Patent Number 5,569,181)

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Gray whose telephone number is (571) 272-7180. The examiner can normally be reached on Monday through Friday, 8:30 a.m. to 4:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on (571) 272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 3767

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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KEVIN C. SIRMONS  
SUPERVISORY PATENT EXAMINER

